

REMARKS

Reconsideration of the pending claims is respectfully requested in view of the above amendments and following remarks.

Claim 1 is amended to require that the inkjet recording medium is a swellable porous inkjet recording medium and comprises a support and one or more swellable porous ink receiving layers and that the ink receiving layers comprise a swellable porous foamed hydrophilic polymer.

Claims 5, 10 and 13 have been amended for consistency with the amendments to claim 1.

New claim 14 has been inserted which specifies that the medium consists essentially of the support and the one or more swellable porous ink receiving layers. Similarly, new independent claim 16 is similar to previous claim 1 in which the medium consists essentially of the support and the one or more swellable porous ink receiving layers, but in which it is clarified that the particles and pores are in other media rather than the claimed medium.

Claim 2 is cancelled.

The amendments to the claims are supported by the specification including the Examples.

Entry of the present amendments is respectfully requested, since they address the reasons for rejection raised in the office action, eliminate issues by clearly distinguishing from the cited references and place the application in condition for allowance.

Rejection under 35 USC 112, second paragraph

Claims 1-7 and 9-13 were rejected as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. According to the office action, the language at the end of the amendment to claim 1 was confusing because it referred to pores between particles that are not claimed.

The phrase beginning with “instead” has been deleted as suggested by the Examiner.

For at least the above reason, reconsideration and withdrawal of the rejection are in order.

Rejection under 35 USC 112, first paragraph

Claims 1-7 and 9-13 were rejected as failing to comply with the written description requirement. According to the office action, the claims contained subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. According to the office action, the amendment to lines 4-6 of claim 1 was new matter because there is nothing in the specification to suggest an intent to exclude ink receiving layers that are not foamed. The office action further states that this concept is not supported by the examples that positively recite foamed layers, because it amounts to an exclusion or a negative limitation.

Claim 1 has been amended to require that the medium is a swellable medium and *comprises* a support and one or more swellable porous ink receiving layers comprising swellable porous foamed polymer, where the ink receiving layer(s) are essentially capable of absorbing dye within the polymer. There is no apparent objectionable exclusion or negative limitation associated with this currently amended claim, which is fully supported by the original specification (see page 2, lines 6-8 and 22-24, for example) and the Examples. It is for this reason that the rejection is requested to be reconsidered and withdrawn in respect of this claim.

Nevertheless, it is respectfully submitted that the concept of requiring that the ink jet receiver comprises only of ink receiving layer that are comprised of foamed hydrophilic polymer is supported by the examples, because the Examples represent what is considered by the inventor to be the best mode of the invention at the time of filing and are typically presented in a positive recitation format (since they describe what was prepared). It is reasonable to draw from the Example that an optional feature of the invention is that the ink jet recording medium consists only of porous foamed hydrophilic polymer ink receiving layers.

It is submitted, therefore, that new claims 14 and 16, which specifies that the medium consists essentially of the support and the one or more swellable porous ink receiving layer(s), is supported by the specification and, in particular, by the examples where the ink recording medium comprises only a support and three swellable porous ink receiving layers.

New claim 15, which has basis on page 2, lines 4-8 and Example 1 (particularly page 4, lines 24-27), requires that the inkjet recording medium comprises a support and one or more swellable porous hydrophilic polymer layers which function as ink receiving layers essentially capable of absorbing dye form an applied ink within the polymer. This claim describes features which are clearly evident from the disclosure of the originally filed specification.

For at least the above reason, reconsideration and withdrawal of the rejection are in order.

Having regard to the amendments made and the previous rejections under 35 USC 102 (b) and 103(a) over the previously cited documents US 6,299,302 (DeBoer) and EP 1,060,901 (Baker), the novel and inventive merit of the amended claims over these documents is discussed below to address any such rejections (in a forthcoming official communication) to the amended claims in view of the cited documents.

Potential Rejection under 35 USC 102(b) and 103(a) in view of DeBoer and '901

DeBoer is concerned with an ink jet receiver which provides variable dot sizes, comprising a substrate, an ink receiving layer disposed over the substrate and a removable ink delivery layer, which in response to a droplet of ink, absorbs a portion of the ink and delivers another portion of the ink to the ink receiving layer (see column 2, lines 1-8). The ink receiving layer is composed of a number of essential components, including clay, one or more water-soluble binders, one or more hardening agents and optionally colloidal silicas (see column 3, lines 21-23). According to Table 1 of DeBoer, the water soluble polymer component is generally in the range from 2-15% and preferably from 5-12% by weight. Amongst a list of additional materials that may be useful in the ink receiving layer is mentioned blowing agents, although no blowing agents are utilized in the specific embodiments.

Claim 1, from which claims 3-5, 7 and 9-14 depend, is directed toward a *swellable* inkjet recording medium comprising a support and one or more *swellable porous* ink receiving layer(s), said one or more ink receiving layer(s) comprising a *swellable porous foamed hydrophilic polymer*, wherein the one or more swellable porous ink receiving layer(s) are essentially capable of absorbing dye from an applied ink within the polymer.

There is no disclosure in DeBoer of a swellable ink recording medium nor of a swellable porous ink receiving layer comprising a swellable porous foamed hydrophilic polymer. The water soluble polymer contained in the ink receiving layer described in DeBoer is present as a binder only, as is clear from the disclosure of the relative amount of binder to be used compared with inorganic particulate (or pigment) and as such, the ink receiving layer would not be considered *swellable* since there is insufficient polymer in the layer to enable swelling, even if a swellable polymer is used. Furthermore, since the water-soluble binder may be selected from a vast range of binders (see column 3, lines 48-67), which are not necessarily swellable polymers, there is no disclosure in DeBoer of the use of a swellable polymer in the receiving layer in combination with a blowing agent.

There is nothing in DeBoer that would lead the skilled person to introduce a swellable polymer into an ink receiving layer in combination with a blowing agent, where the polymer is present in an amount sufficient that the resulting ink receiving layer is formed it is capable of swelling and absorbing dye within it on application of ink. On the contrary, the skilled person would be led by DeBoer to reduce the relative amount of the water-soluble polymer (see Table a).

It is submitted, therefore, that claim 1 is novel and inventive over DeBoer. Claims 3-7 and 9-14 are novel and inventive at least by their dependence on patentable claim 1.

Similarly, in respect of Claim 15, which requires that the inkjet recording medium comprises a support and one or more swellable porous hydrophilic polymer layers, which polymer layers are essentially capable of absorbing dye from an applied ink within the polymer, there is no disclosure in DeBoer of a swellable polymer ink receiving / image forming layer and nothing that would lead the skilled person to seek to provides such a polymer ink receiving layer, since the ink receiving layers disclosed have large proportions of pigment.

Accordingly, it is submitted that claim 14 is novel and inventive over DeBoer.

EP-A-1,060,901 (hereafter the '901 patent) is concerned with an ink jet image recording element comprising a support, an absorbent layer and a top layer which is ink receptive and comprises one or more hydrophilic polymers, gelatin, a crosslinking agent for gelatin and a humectant. On page 4, lines 22-24 of EP-A-1,060,901, it is stated that "a porous structure may be introduced into the base layer by the addition of ceramic or hard polymeric particulates, by foaming or blowing during coating, or by inducing phase separation in the layer through introduction of non-solvent". There is no disclosure in the '901 patent of the ink receiving layer being made porous, only that the option of making the base layer porous is there. It is noted that the base layer is not an *ink receiving layer* as required by the present claims (i.e. being capable of absorbing dye from applied ink within the polymer), since it

is present primarily as a sponge to absorb *ink solvent* (see page 4, line 12). Furthermore, the ink jet receiver of the '901 patent is not a swellable polymer that comprises of a support substrate and one or more swellable porous ink receiving layers, which comprise a swellable porous foamed hydrophilic polymer. Given that the invention described in the '901 patent is primarily concerned with a non-porous hydrophilic polymer ink-receiving layer having a hydrophilic *sponge* layer beneath, with the purpose of providing improved dry time and gloss, there is no indication or suggestion in the '901 patent that would lead the skilled person to utilize a porous foamed hydrophilic polymer in each ink receiving layer in order to improve image stability whilst minimizing dry time.

In view of the foregoing remarks, reconsideration of the above identified patent application is respectfully requested. Prompts and favorable action by the Examiner is earnestly solicited. Should the Examiner require anything further, the Examiner is invited to contact Applicant's representative.

Respectfully submitted,



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